North American Drought Monitor - January 31, 2004

CANADA: This report reflects the agricultural regions of Canada. During the month of January, Canada experienced variable weather. Extremely cold temperatures were experienced by much of the country and generally temperatures were below average, except on the coast of British Columbia. Precipitation was above average across most of British Columbia, northern agricultural areas of Alberta, Saskatchewan, Manitoba, Ontario, Newfoundland, and Labrador and below average in southern Alberta, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island.

Conditions remain abnormally dry (D0) in south central British Columbia. In southern Alberta, conditions are abnormally dry (D0), and the moderate drought (D1) area expanded in the northeast agricultural region. In Saskatchewan, conditions range from average in the southwest to severe in parts of the northeast and east central regions. Conditions range from abnormally dry (D0) in the southern regions of Manitoba to moderate (D1) or severe in the northwest region.

Moderate drought (D1) conditions persist in northwest Ontario because of persistent low lake levels, which are expected to continue until spring. There are no drought related issues in eastern Canada, although snowpack accumulations in the Atlantic provinces are below average.

UNITED STATES: January was marked by several major winter storm events that dumped much-needed snows and moisture across a good deal of the Plains and Midwest. Colder-than-normal temperatures also served to keep the snow around as record snow depth totals were observed for many locations in eastern Nebraska and western Iowa. Also benefitting from a wet January were parts of the Pacific Northwest and northern and western Idaho. Abnormally dry (D0) conditions persisted in January for parts of interior Alaska and Hawaii (Molokai and the Big Island).

Farther to the east, good rains and snow have led to some one-category improvements and/or a westward push in the drought depiction from western Texas up through parts of Oklahoma, eastern Kansas, eastern Nebraska, and western Iowa. Although totals have been more favorable for some in the short term, significant long-term deficits still exist when looking at the water year, 6-month, 1-year, and longer time frames in the West and the western Plains. Couple this with the fact that this time of year contributes only a small fraction to the annual precipitation totals on the Plains and one could say it is a favorable turn in the near term but by no means a sign of the end of drought in these regions as we head toward spring.

Unfortunately, the Southwest and most of the Intermountain West have not experienced a favorable winter pattern as disappointing snowpack and snow water equivalent totals still remain for the water year to date (Oct. 1-Jan. 31) and longer periods. Most of Nevada, southern California, northern Arizona, and most of New Mexico saw a January that brought them half of their expected precipitation or less. For the wet season, many basins in the regions noted above were only running at 50-80% of their normal snow water equivalents through the end of January. Parts of western Kansas, Nebraska, Wyoming, and southern Montana experienced a very dry (< 50% of normal precipitation) January as well. Severe (D2) to extreme (D3) drought is still well

entrenched in these areas.

MEXICO: The month of January was exceptionally wet across most sections of the country. The Servicio Meteorológico Nacional (SMN) reported an aerial mean of 131% of normal precipitation for the country, with the wettest conditions reported over western Mexico. For the country as a whole, January 2004 ranked as the 15th wettest January for the period 1941-2004, and was the wettest January of the past ten years. The wet conditions over Mexico were associated with a southward-displaced polar jet stream and a strong moisture plume that entered western Mexico during the middle of the month. These two factors combined to produce large snowfalls in the high mountains surrounding Mexico City and in some portions of the Sierra Madre Occidental. The only region of notable dryness was the Yucatan Peninsula, with Quintana Roo reporting large precipitation deficits.

Despite a wet January, drought conditions in Mexico showed only minor changes compared to last month. Over the Baja California peninsula, the abnormally dry conditions (D0) increased southward into the northern part of the state of Baja California Sur. Although some improvements were noted in January, the dryness and drought conditions over Sonora, Chihuahua, and Sinaloa remain almost unchanged because of the lack of wetness during the past three months. As a result, both agriculture and hydrological (A, H) impacts are affecting this region. No changes were detected in the small areas of D0 in central and southern Mexico.